

What Is Claimed Is:

1. A method for charging a battery having a control device that influences a charging current for the battery in a predefined manner and carries out at least two different charging methods, the method comprising:
in a first charging method, maintaining a substantially constant voltage;
and
in a second charging method, taking measures resulting in dynamization.
2. The method according to claim 1, wherein the battery is a lead-acid battery in a motor vehicle that is charged via a generator that is regulated to predefined voltages via a voltage regulator.
3. The method according to claim 1, further comprising, in the second charging method, forcing discharges at predefined instants by one of switching on a predefined consumer and de-exciting a charging device.
4. The method according to claim 3, wherein the consumer is a window heater.
5. The method according to claim 3, wherein the charging device is de-excited during charging phases.
6. The method according to claim 1, further comprising increasing a charging voltage with respect to a usual value in the second charging method.
7. The method according to claim 6, wherein the charging voltage is increased to about 16 volts.
8. The method according to claim 6, wherein the charging voltage is increased via corresponding controlling by a voltage regulator, which provides an increased target voltage value for regulating an output voltage.

9. The method according to claim 6, wherein the charging voltage is influenced in the case of a generator having a controlled rectifier bridge by activating pulse inverter elements of a rectifier bridge.
10. The method according to claim 3, wherein the charging device is de-excited such that an excitation current is interrupted in each case after a predefined first time for a second time, the first time being in a range of 20 to 60 seconds and the second time being about one second.
11. The method according to claim 10, wherein the charging device is de-excited via corresponding controlling of a regulating transistor of a voltage regulator.
12. The method according to claim 1, further comprising:
 - in the second charging method, forcing discharges at predefined instants by one of switching on a consumer and de-exciting a charging device; and
 - increasing a charging voltage with respect to a usual value at predefined instants.
13. The method according to claim 1, further comprising increasing a charging voltage only when one of (a) no voltage-critical consumers are switched on and (b) voltage-critical consumers are switched off prior to an increase in voltage.
14. The method according to claim 1, wherein the method is carried out in such a manner that negative effects on specific values are prevented, predefined priorities being taken into consideration when selecting the methods.
15. A device for charging a battery comprising:
 - means for maintaining a substantially constant voltage in a first charging method and for taking measures resulting in dynamization in a second charging method.